

CLAIMS:

- 5 1. A jet propulsion engine, especially for watercraft, comprising a rotor (1) on the inside of which blades (2) are disposed, and a housing (3) in which the rotor (1) is rotationally received, characterized in that the bearing between rotor (1) and housing (3) comprises carbide that is resistant to sea-water.
- 10 2. A jet propulsion engine according to claim 1, characterized in that the bearing between rotor (1) and housing (3) comprises silicon carbide or aluminum carbide.
- 15 3. A jet propulsion engine according to claim 1 or 2, characterized in that the bearing between rotor (1) and housing (3) consists exclusively of carbide.
4. A jet propulsion engine according to one of the claims 1 to 3, characterized in that the bearing is formed by slide bearings.
- 20 5. A jet propulsion engine according to one of the claims 1 to 4, characterized in that the bearing in the rotor (1) and/or the bearing in the housing (3) is formed by several segments.
- 25 6. A jet propulsion engine according to claim 5, characterized in that the bearing segments are spaced on the rotor or arranged in such a way that a pumping effect is obtained by centrifugal force.
- 30 7. A jet propulsion engine according to claim 6, characterized in that the bearing segments on the rotor (1) are spaced on the one side and the bearing segments on the housing (3) are spaced on the other side, so that the pumping effect achieved by the spaced bearing segments on the rotor (1) lead to a defined flow.

8. A jet propulsion engine according to one of the claims 6 or 7, characterized in that the bearing segments are fixed in a positive-locking manner to the housing (3) or rotor (1) and are thereafter glued.
- 5 9. A jet propulsion engine according to one of the claims 1 to 8, characterized in that the housing encloses the rotor in a tube-like manner, so that a hollow space (17) is obtained between outside of rotor (1) and inside of housing (3) and an electric ring motor is arranged in said hollow space.
- 10 10. A jet propulsion engine according to one of the claims 1 to 9, characterized in that the bearing between rotor (1) and housing (3) has a diameter of larger than 200 mm, preferably in the range of 200 mm to 2500 mm.
- 15 11. A method for producing a bearing on a jet propulsion engine, especially for water vehicles, comprising a rotor (1) and a housing (2), characterized by the following steps:
- a) positive-locking fixing of bearing segments made of carbide to the rotor;
 - b) gluing of the bearing segments to the rotor;
 - c) grinding of at least two bearing surfaces standing substantially
 - 20 perpendicularly on each other on the bearing segments on the rotor;
 - d) positive-locking fixing of bearing segments made of carbide to the housing;
 - e) gluing of bearing segments to the housing, and
 - f) grinding of at least two bearing surfaces standing substantially
 - 25 perpendicularly on each other on the bearing segments on the housing.